THE TAR HEEL WASH OFF

JANUARY - 1937

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DEEP RIVER AREA

HIGH POINT, NORTH CAROLINA

THE STATE COORDINATOR'S MESSAGE

The year 1936, now closed, has witnessed a steady advancement in the work of soil conservation in the North Carolina Piedmont. The work has been expanded in all of its phases, and many farmers, both cooperators and those outside the areas have profited extensively from the use of the improved farming methods recommended by the Soil Conservation Service.

Now that the farmer's busy season is over, he should turn his attention to the maintenance of the work already done, and to the planning of next season's crops. There may be terraces, terrace outlet ditches or meadow strips that need repair. If so, this work should not be neglected. If field strips have washed, these should receive immediate attention. All plans pertaining to crop production for the coming season should be worked out wisely and with care, both from the standpoint of crop yield and erosion control.

It is gratifying to note the effort that is being put forth by the people in the Piedmont area to protect and conserve the soil and to improve farming practices.

In addition to the 100 percent cooperation of many of the farmers, the Service has enjoyed during the past year the hearty cooperation of the various civic organizations, newspapers, State College Extension Service and Experiment Station, Raleigh, and the Erosion Control Experiment Station at Statesville. Also the Four-H Clubs, Grange, Vocational Agricultural teachers, County Superin-

tendents of Schools, County Agents, the Guilford County Soil Conservation Association and others. All have had a part in the important work of saving and improving the soils.

Aside from the actual work done on the farms, educational programs, such as field demonstrations and tours, have been planned and carried out for the benefit of the farmers, Vocational Agricultural students, Four-H Clubs and other farm organizations. Lectures, both within and without the camp and project areas have been given. News articles and radio talks have been effectively used in broadcasting the appeal for better farming, and we enter the New Year, confident that still greater things will be accomplished during the coming seasons.

Dr. J. H. Stallings,
State Coordinator.

STRIP CROPPING MAINTENANCE

Maintenance of strip cropping consists in maintaining a good thick growth of crops in the protective strips, and in keeping the strip in the proper position on the field. Permanent strips in a field should have an application of complete fertilizer or manure often enough to keep the grasses and legumes growing in good shape. Places in the strip that have become thin should be re-seeded in addition to the application of fertilizer and manure.

Permanent strips, made up of hay, grasses and legumes on good land should produce a quantity of good hay where they are properly cared for. Therefore, the hay should be cut at the proper time, and high enough from the ground to avoid retarding the next growth. Weeds, briars and brush should be kept down, and when it becomes necessary to plow up a permanent strip, as alfalfa, and use for cultivated crops for one or more years, lespedeza or clover should be grown in the area between these strips during this period.

Where washes occur on the strips, they should be repaired immediately, by plowing in, pulverizing, applying fertilizer, seeding and paving lightly with small brush.

Sufficient seed of lespedeza, clover or grasses should be used to produce a good stand. Productivity should be maintained by adding manure and fertilizer to the thin places, and turning into the land all the lespedeza, clover and vetch possible. The richer the soil, the greater the growth of close-growing crops, and the more effective the protective strips in erosion control.

CROP ROTATION MAINTENANCE

The following objectives should be kept in mind in maintaining a crop rotation system that will conserve the soil:

1- Maintaining a high organic content in the soil.

2- Keeping the land covered with close-growing crops as large a percentage of the time as possible.

3- Increasing the fertility of the soil.

Once a rotation is properly established, it is not difficult to continue in the proper order. When seasonal or other conditions prevent the planting of a crop as scheduled, the field should be worked back into the regular schedule as soon as possible by substituting another crop of the same type or waiting till the following year.

To increase the organic content and the fertility of the soil, the farmer should turn into it as much of the thick-growing, soil-improving crops grown in the rotation as possible. The extensive use of legumes in the rotation will improve the soil and increase the yield of such crops as cotton and corn. Good soil preparation and the proper use of lime, fertilizer and seed are essential if the best results are to be obtained.

Crimson clover, vetch, Austrian winter peas, wheat and rye are good winter cover crops.

These cover crops will assist in preventing erosion and the leaching of plant food during the winter months, and will furnish organic matter for turning into the soil the following spring.

TERRACE MAINTENANCE

At this season of the year, it is advisable that the farmers in the North Carolina Piedmont, who have their land terraced, give some attention to terrace maintenance.

During the past summer, many farmers have grown row crops on terraced land. Even under ideal conditions, the growing of row crops is always accompanied by soil loss. There are ways and means, however, of reducing this loss to a minimum.

More attention is required the first year, when the terraces are settling. The farmer should inspect each terrace after heavy rains and remove any loose soil that was deposited in the channel. Places that appear weak should be strengthened.

In breaking the land, the best results are obtained by throwing all dirt from both sides toward the top of the terrace. This has the effect of building up and widening the terrace, and replaces the soil that has washed or moved down by cultivation during the previous season. After the terrace has been built up, the space between the terraces is broken as a separate land.

In plowing, rows should be run on the contour, or parallel with the terraces, thus preventing the loss of much valuable topsoil. Enormous soil losses result when rows are run up and down the slope, as each row forms a gully, down which the soil is carried into the terrace channel, filling it up and causing the terrace to break.

TERRACE OUTLET MAINTENANCE

Most of the farmers in the Deep River area have completed the sowing of small grain and are winding up the fall work. Inclement weather will prevent extensive farming operations for a season, and the farmer should take advantage of the opportunity thus afforded to check his terrace outlets and outlet ditches. Where breaks have occurred, repairs should be made at once in order to prevent excessive washing and further damage to the outlet.

If the outlet is a meadow strip, or if constructed of sod, repairs may be made by filling the broken space with dirt and re-sodding. Or, by filling with dirt and rocks, paving lightly with brush and re-seeding. Brush paving is done by placing a pole across each layer and staking down the pole.

If the channel is of rock masonry or concrete, any danger spots that are developing should be filled with loose rock. On ditches that have concrete ribbons (baffles) across them where the water overfalls, and there is danger of cutting out a pothole, these should also be filled with loose rock.

By keeping a close check on terrace outlets and outlet ditches and by repairing the breaks as soon as they occur, much time and expense can be saved and a great deal of soil conserved.

PASTURE MAINTENANCE

New pastures should not be grazed until the growth is about four inches high, and then only lightly the first year. However, the growth should be kept down to a height of four inches at all times. Stock should not be allowed to graze on pastures when the land is wet enough to damage the sod. Overgrazing of pastures should be avoided al all times, and stock should be removed from heavily grazed pastures sufficiently early to allow the establishment of a good cover before the coming of winter.

It is advisable to provide a supplementary pasture of soybeans, cowpeas or Sudan grass for use during the dry weather which often comes in late summer and early fall. Rye and oats may be used for early spring grazing to supplement pastures and prevent overgrazing.

Pastures should be top dressed with fertilizer and manure, and lime should be applied occasionally. It may become necessary at times to apply additional seed in spots on the pasture. A complete mixture may be required on bare areas, but as a rule only those varieties needed to supplement the established sod are required.

Pastures should be mowed at least once each summer to keep down weeds and briars. On soils subject to severe heaving caused by freezing during the winter a roller should be run over the field in March.

MEADOW MAINTENANCE

The productivity of permanent hay fields should be maintained at all times in order to keep sufficient vegetative growth on the land for controlling erosion and producing hay. The hay cut from the fields will remove plant food. Therefore, this plant food should be replenished by applications of manure, fertilizer and lime. An extra quantity of these materials should be applied on poor spots or areas where the growth is thin; and seed should be added on thin or bare spots.

Where lime was applied at seeding time, it should be several years before another application is needed. The type of soil would also determine the need for applications of lime on hay fields. On reasonably productive land, applications of 200 to 400 pounds of 2-10-4 or 2-12-4 per acre, applied each year, or 600 pounds of superphosphate applied every two years is suggested. On the less productive land a 200 to 400 pounds of 4-10-4 or 4-12-4 fertilizer is recommended.

All weeds, briars and brush should be cut on hay fields. The hay should be cut at a height that will enable the new growth to come on in good shape. Any washes that occur on the field should be repaired by re-seeding, paving lightly with brush, or re-sodding.

WOODLAND MAINTENANCE

If properly cared for, woods will furnish at all times, a convenient supply of timber, fuel and fencing for home use, and at intervals will yield valuable material for the market. Proper maintenance methods include, protection from fire and grazing, judicious thinning, cutting away of vines, etc.

No other one thing, nor combination of destructive forces can wreak so much havoc in so short a time upon woodland as fire. Therefore, it is of vast importance that fire be prevented.

Pasturing of woods is one of the chief causes of their deterioration. Cattle, horses, sheep or goats, eat the young seedlings, particularly the hardwoods, trample them out or break them down. Hogs eat the seeds and thus prevent reproduction, or root the young seedlings out of the ground and often eat the roots.

At this season of the year the farmers are cutting wood for winter fuel. Care should be exercised in its selection. The trees to be removed should be the dead ones and those of least value; but insect and disease-infected specimens of all classes should by all means be taken out. The trees which remain after a thinning should as a rule be those which are of the best form,

regardless of species, and presumably of the highest market value.

In thinning it must be remembered that the condition of the soil very materially influences the health and vigor of the forest trees. The soil should be kept fresh, soft, loose and free from mat grasses. This may be done by keeping the ground shaded. It is desirable, therefore, to retain any of the intermediate or suppressed trees which are necessary for shade.

Such vines as grape, ivy, honeysuckle and woodbine frequently occur in woodlands. They invariably twine about the trunks and throughout the tops of the trees. They affect both conifers and hardwoods and do more damage than may be realized. When of large size, their heavy foliage and small branches, shade out and kill the leaves of the trees. Also, by their sheer weight they often bend over the tops of the trees, which are thus killed or rendered very unthrifty. The vines have no special value and should be eliminated by severing the parent stem near the ground.

Gratifying results have been accomplished in the establishment and improvement of farm woodlands in the Deep River area, during the past two or three years, and it is to the farmer's best interest to continue the proper care and mainenance of his woodland.

MAINTENANCE OF AREAS DEVELOPED FOR WILDLIFE

The average farm in the North Carolina Piedmont may be economically managed for wildlife and a valuable use for eroded lands realized.

Unless definite areas on the farm, which are generally unfit for cultivation, are devoted to wildlife refuges, and then properly managed, the land owner cannot expect an average supply of desirable wildlife species.

The ground dwelling species of bird life have a very important part in the wildlife program. The first consideration, then, is to provide suitable ground cover and food so that these beneficial species may increase.

After a stand of cover has been established on gullies, land retired from cultivation and other areas devoted to wildlife conservation, the following practice are recommended:

On all treated areas the trees should be kept thinned to a point where ground cover will not be killed by shading. The most desirable shrubby plants should be left in moderate numbers to grow in clumps. The plant succession on areas not cultivated every year will give variety. Selection of plants, as sassafras, sumac, plum and other food bearing shrubs are preferred to pine and other large trees.

When time cannot be spared for the preparation of seedbeds each spring, it is advisable to include a perennial or re-seeding species in each food-producting mixture that is applied on land other than gullies. Such areas will remain in satisfactory condition from three to six years or more. By re-seeding a few such plots each year a

continual supply of food can be maintained.

When the farmer is unable to re-seed designated wildlife areas, light disking, which may be done during the late fall or winter at intervals of two or three years, will generally stimulate desired volunteer growth.

It is not known frequently disking should be done on areas sown to sericea lespedeza, but it is evident that this lespedeza will produce for at least four to eight years without reseeding.

With each harvesting of small grain and hay crops, narrow strips should be left standing along the borders and in odd corners of the field. It is especially important that a strip should be left standing on the lower part of the field to serve as a filter strip and increase food supply for quail near the woodland.

GULLY CONTROL

The cost of gully work should be governed by the value of the land and other property being damaged or threatened. Water should be diverted from the gullied areas wherever practical, keeping in mind the cost of the diversion and satisfactory outlets for the diversion ditch.

The farmer should produce material on the farm for mulching, such as brush, straw, lespedeza straw, hay mow litter, old hay, woods litter, etc., all of which prove valuable as mulch.

The collection of mulch materials into stock piles during the winter will greatly speed up the work during the spring seeding and planting season. Past experiences show that adequate mulching is very important in establishing vegetation on gullied and eroded areas and should not be overlooked in the gully treatment. Likewise, proper seedbed preparation is very important. Seeding should not be done on hard, unbroken gullied areas, but a good seedbed should be prepared and fertilizer or manure, sufficient to secure a good growth, should be applied to galled or gullied areas that are to be seeded.

Brush dams built in the bottom of gully channels, brush paving, bank sloping, of which only a limited amount should be done, seedbed preparation and mulching may be done in winter in preparation for spring seeding and planting.

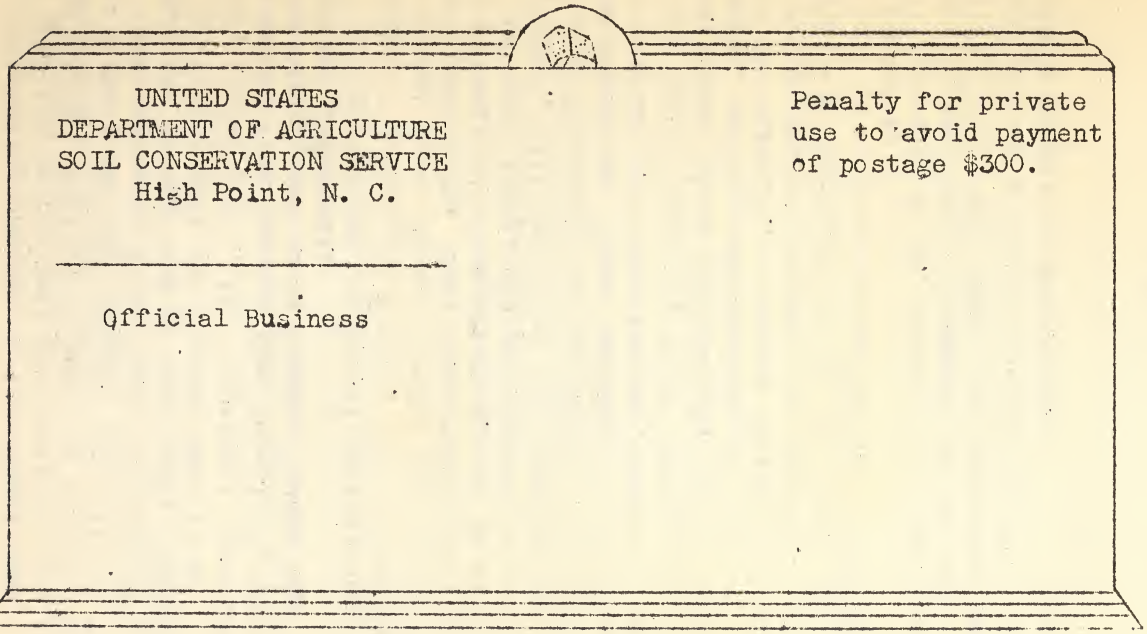
EDUCATIONAL FIELD TOURS

A striking example of the educational work embraced in the Soil Conservation Service program in the Madison Project, is reported by L. A. Carter, Project Manager, Reidsville.

Five separate field tours were recently planned and carried out in that area. Working in cooperation with the Service were F. S. Walker, County Agent, the Vocational Agricultural teachers from the six High Schools in Rockingham County, and J. E. McLean, County Superintendent of Schools.

A total of 325 Vocational Agricultural students of Rockingham County, and 75 students from Walnut Cove, Stokes County, were taken on these field tours. Soil Conservation Service trucks furnished transportation, and in each case the full school day was devoted to the field trip. All phases of soil conservation work were inspected and the methods explained to the students. These included crop rotation, contour tillage, strip cropping, terracing and terrace outlet channels, meadow strips, pastures, timber stand improvement, forest tree planting, and the establishment of food and cover for wildlife. A number of proposed sites for future operations were also visited. Lunches were purchased at the CCC Camp, and the boys were given an opportunity to inspect the premises.

According to Mr. Carter, the boys manifested a great deal of interest in the work they observed. They asked many questions and expressed much favorable comment upon the different phases of operations.



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High Point, N. C.

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